Jackson Valley Rehabilitation

On State Route 88 in Amador County
from the San Joaquin/Amador county line to State Route 124
10-AMA-88-PM 0.0/5.5
EA 10-264440

Initial Study with
Proposed Mitigated Negative Declaration

Prepared by the
State of California Department of Transportation

March 2007

Caltrans

General Information About This Document

What's in this document?

The California Department of Transportation (Caltrans) has prepared this Initial Study, which examines the potential environmental impacts of alternatives being considered for the proposed project located in Amador County, California. The document describes why the project is being proposed, alternatives for the project, the existing environment that could be affected by the project, potential impacts from each of the alternatives, and the proposed avoidance, minimization, and/or mitigation measures.

What should you do?

- Please read this Initial Study. Additional copies of this document as well as the technical studies are available for review at the Caltrans district office at 1976 E. Dr. Martin Luther King Jr. Blvd. (Charter Way), Stockton, CA 95205 and the Amador County Library (Ione Branch) at 25 E. Main Street, Ione, CA 95640. The document can also be viewed online at: http://www.dot.ca.gov/dist10/pages/conslinks.htm.
- We welcome your comments. If you have any concerns regarding the proposed project, send your written comments to Caltrans by the deadline. Submit comments via U.S. mail to Caltrans at the following address:

Juan Torres, Acting Branch Chief
Central Sierra Environmental Analysis Branch
California Department of Transportation
2015 E. Shields Avenue, Suite 100
Fresno, CA 93726

Submit comments via email to: juan_torres@dot.ca.gov

- Submit comments by the deadline: _____.

What happens next?

After comments are received from the public and reviewing agencies, Caltrans may 1) give environmental approval to the proposed project, 2) do additional environmental studies, or 3) abandon the project. If the project is given environmental approval and funding is appropriated, Caltrans could design and construct all or part of the project.

For individuals with sensory disabilities, this document is available in Braille, large print, on audiocassette, or computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Juan Torres, Central Sierra Environmental Analysis Branch, 2015 E. Shields Avenue, Suite 100, Fresno CA, 93726; (559) 243-8405 Voice, or use the California Relay Service TTY number, (800) 735-2929.

SCH# _____
10 – AMA – 88 – PM 0.0/5.5
EA # 10-264440

Rehabilitate State Route 88 in Amador County from the San Joaquin county line to the intersection with State Route 124

INITIAL STUDY
with Proposed Mitigated Negative Declaration

Submitted Pursuant to: (State) Division 13, California Public Resources Code

THE STATE OF CALIFORNIA
Department of Transportation

3/15/07
Date of Approval

Christine Cox-Kovacevich
Environmental North Office Chief
Central Region Environmental Planning
California Department of Transportation

Proposed Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) proposes to rehabilitate pavement and widen shoulders on State Route 88 in Amador County from the San Joaquin county line to State Route 124.

Determination

This proposed Mitigated Negative Declaration is included to give notice to interested agencies and the public that it is Caltrans' intent to adopt a Mitigated Negative Declaration for this project. This does not mean that Caltrans' decision regarding the project is final. This Mitigated Negative Declaration is subject to modification based on comments received by interested agencies and the public.

Draft

Caltrans has prepared an Initial Study for this project and, pending public review, expects to determine from this study that the proposed project would not have a significant effect on the environment for the following reasons:

The proposed project would have no effect on air quality, land use, sensitive noise receptors, hydrology/floodplains, geological resources, hazardous waste, mineral resources, housing, or recreation.

In addition, the proposed project would have no significant effect on water quality, utility services, farmland, growth, visual resources, traffic patterns, or emergency services.

Also, the proposed project would have no significantly adverse effect on biological resources, cultural resources, or paleontology because the following mitigation measures would reduce potential effects to insignificance:

- Vernal pools and wetlands would be avoided and impacts minimized where possible. Offsite mitigation credits would be purchased for any unavoidable loss of vernal pools or wetlands.
- Oak trees would be avoided where possible. Onsite replacement planting or purchase of an offsite mitigation parcel would compensate for unavoidable loss of oak trees.
- An archaeological site eligible for the National Register of Historic Places would be monitored during construction and the portion of the site containing intact deposits would be protected as an environmentally sensitive area.
- A qualified paleontologist would monitor construction and recover any fossils uncovered during construction.

Christine Cox-Kovacevich
Environmental North Office Chief
Central Region Environmental Planning
California Department of Transportation

Date

Summary

The California Department of Transportation (Caltrans) proposes to rehabilitate pavement and bring a section of State Route 88 in Amador County to current design standards. The 5.5-mile project would begin at the San Joaquin/Amador county line and end where State Route 88 intersects with State Route 124.

Two alternatives are being considered: a build alternative and a no-build alternative. The build alternative would involve the following actions:

- Rehabilitate pavement, including digging out localized areas of pavement failure, sealing cracks, and overlaying the roadway with asphalt concrete.
- Widen shoulders from Bamert Road to State Route 124 to provide standard 8-foot shoulders.
- Upgrade the drainage system by replacing or extending culverts as needed.
- Widen Jackson Creek Bridge (#26-0019) and Jackson Creek Overflow Bridge (#26-0031) to provide standard 8-foot shoulders.
- Relocate utilities, as needed, where shoulder widening would interfere with maintenance of utilities by limiting access.
- Add turnouts between post miles 1.5 and 2.1.
- Pave local road connections and private driveways within state right-of-way.
- Relocate the existing driveway on the Gansberg property to approximately post mile 3.0 (between Jackson Creek Bridge and Jackson Creek Overflow Bridge).

Summary of Major Potential Impacts from Alternatives

Potential Impact		Build Alternative	No-Build Alternative
Farmlands		Approximately 29 acres of farmland would be affected.	No impact
Relocation	**Business displacements**	None	No impact
	Housing displacements	None	No impact
	Utility service relocation	Utilities would require relocation.	No impact
Visual/Aesthetics		Visual impacts from new cut and fill slopes and removal of mature trees.	No impact
Cultural Resources		One archaeological site eligible for the National Register of Historic Places would be affected.	No impact
Water Quality and Storm Water Runoff		Provisions of Caltrans' storm water permit would be followed to minimize impacts from future storm water runoff.	No impact
Paleontology		Unique paleontological deposits may be found in the project area.	No impact
Natural Communities		Approximately 26 acres of oak woodlands would be affected.	No impact
Wetlands and other Waters		Approximately 0.40 acre of waters of the U.S. and 0.48 acre of vernal pools would be affected.	No impact
Animal Species		Habitat for California linderiella, midvalley fairy shrimp, western spadefoot toad, western pond turtle, burrowing owl, bat species, and migratory birds would be affected.	No impact
Threatened and Endangered Species		Habitat for vernal pool fairy shrimp, vernal pool tadpole shrimp, and California tiger salamander would be affected.	No impact
Construction		Short-term noise and air quality impacts. Traffic delays are anticipated.	No impact

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Chapter 1 Proposed Project

1.1 Introduction

The California Department of Transportation (Caltrans) proposes to rehabilitate pavement and bring a section of State Route 88 in Amador County to current design standards. State Route 88 runs west to east beginning at State Route 99 in Stockton in San Joaquin County, moves through the city of Jackson in Amador County, and continues through Woodfords in Alpine County and across the border into Nevada. The proposed project would repair deteriorated pavement beginning at the San Joaquin/Amador county line (post mile 0.0) and extending to the intersection with State Route 124 (post mile 5.5). Figures 1-1 and 1-2 show the project vicinity and location.

Small amounts of right-of-way would be acquired from several properties along State Route 88 and utilities would be relocated. The total amount of proposed new state right-of-way required for the proposed project is 29 acres. The project was programmed in the 2000 State Highway Operation and Protection Program as an HA-22 pavement rehabilitation project. Construction is scheduled to start in winter of 2010 and would be completed in spring of 2012. The current cost estimate for the proposed project (construction and right-of-way) is approximately $16,840,000.

1.2 Purpose and Need

1.2.1 Purpose

The purpose of the proposed project is to improve the operation of the roadway by repairing deteriorated pavement and widening shoulders to 8 feet.

1.2.2 Need

Deteriorated pavement and cracking results in an uneven surface, which contributes to vehicle wear. Over time this also results in higher maintenance costs for patching small cracks and potholes in the pavement. The lack of shoulders leaves inadequate room for emergency maneuvers or parking for stalled vehicles.

1.3 Alternatives

1.3.1 Build Alternative

The build alternative would rehabilitate pavement and widen shoulders. The proposed project would involve the following actions:

- Rehabilitate pavement, including digging out localized areas of pavement failure, sealing cracks, and overlaying the roadway with asphalt concrete.
- Widen shoulders from Bamert Road to State Route 124 to provide standard 8-foot shoulders.
- Upgrade the drainage system by replacing or extending culverts as needed.
- Widen Jackson Creek Bridge (#26-0019) and Jackson Creek Overflow Bridge (#26-0031) to provide standard 8-foot shoulders.
- Relocate utilities, as needed, where shoulder widening would interfere with maintenance of utilities by limiting access.
- Add turnouts between post miles 1.5 and 2.1.
- Pave local road connections and private driveways within state right-of-way.
- Relocate the existing driveway on the Gansberg property to approximately post mile 3.0 (between Jackson Creek Bridge and Jackson Creek Overflow Bridge).

1.3.2 No-Build Alternative

The no-build alternative would leave the existing roadway in its current condition. The pavement would continue to deteriorate and the narrow shoulders would remain.

1.3.3 Comparison of Alternatives

The build alternative would repair the pavement for the entire length of the project and bring the shoulders to standard width from Bamert Road to State Route 124. The no-build alternative would not address the poor pavement conditions and would also leave the roadway with non-standard shoulders. The no-build alternative would not meet the purpose and need of the proposed project.

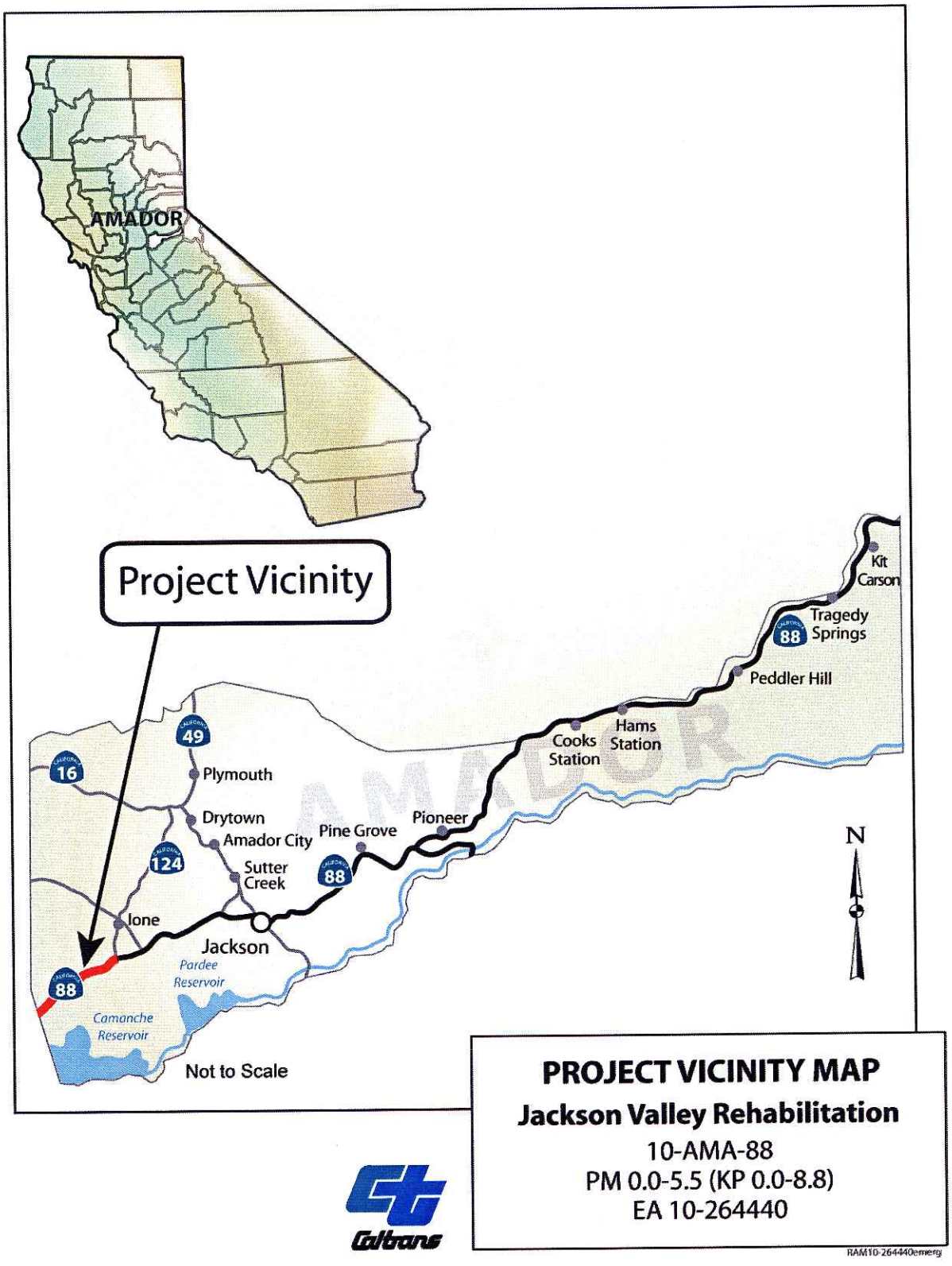

Figure 1-1 Project Vicinity Map

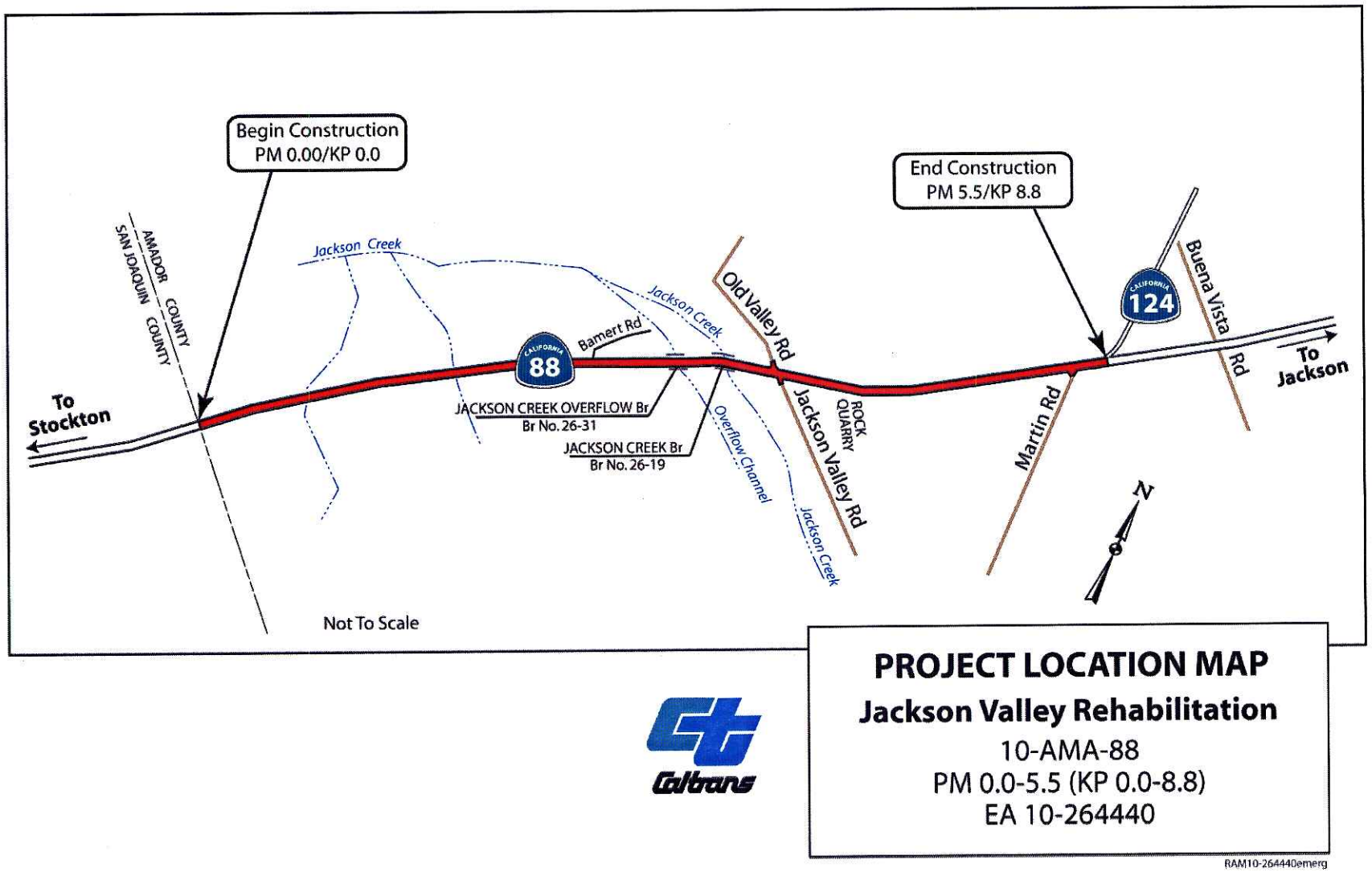

Figure 1-2 Project Location Map

1.4 Permits and Approvals Needed

Table 1.1 Permits/Approvals Required

Agency	Permit/Approval	Status
U.S. Fish and Wildlife Service	Section 7 consultation for threatened and endangered species	Formal consultation for vernal pool fairy shrimp and California tiger salamander will be initiated in Spring of 2007.
U.S. Army Corps of Engineers	Clean Water Act Section 404 permit for filling or dredging waters of the United States	The 404 permit application will be submitted after project approval.
California Department of Fish and Game—a Responsible Agency under the California Environmental Quality Act	Department of Fish and Game Code Section 1602 Streambed Alteration Agreement	The streambed alteration agreement will be applied for after project approval.
Regional Water Quality Control Board	Clean Water Act Section 401 water discharge permit	The Section 401 permit application will be submitted after project approval.

Chapter 2 Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures

This chapter explains the impacts that the project would have on the human, physical, and biological environments in the project area. It describes the existing environment that could be affected by the project, potential impacts from each of the alternatives, and proposed avoidance, minimization, and/or mitigation measures. Any indirect impacts are included in the general impacts analysis and discussions that follow.

As part of the scoping and environmental analysis conducted for the project, the following environmental issues were considered, but no adverse impacts were identified. Consequently, there is no further discussion regarding these issues in this document.

- Land Use—No change in existing land use would occur as a result of the proposed project (review of project plans and field review, October 2005).
- Growth—No change in existing growth patterns would occur as a result of the proposed project (review of project plans and field review, October 2005).
- Community Impacts—The proposed project is in a rural area and would not have any impacts to a well-defined and established community (field review, October 2005).
- Relocations—This is a rural area and no homes or businesses would be relocated (review of project plans and field review, October 2005).
- Traffic and Transportation/Pedestrian and Bicycle Facilities—There are no sidewalks or bike lanes in the project area (field review, October 2005). Widening the shoulders to standard width would benefit bicyclists and pedestrians.
- Geology/Soils/Seismic/Topography—No substantial seismic ground-shaking, landslides, or soil instabilities in the project area (e-mail from project engineer, January 2007).
- Air Quality—The proposed project is exempt from air quality conformity analysis per Section 40 Part 93.126 of the Code of Federal Regulations (Agnes Jenkins e-mail, December 2006).

- Noise and Vibration—The proposed project would not result in an increase in traffic-generated noise and is not subject to noise analysis per Caltrans' Traffic Noise Protocol (Noise Study Report, August 2006).

2.1 Human Environment

2.1.1 Utilities/Emergency Services

Affected Environment

Three utilities are present within the limits of the proposed project: an underground natural gas line, an underground fiber optic line, and above ground and underground telephone lines.

Impacts

Work to widen the shoulders would require the relocation of all three utilities at different points throughout the project area. No disruption of utility service is anticipated.

Avoidance, Minimization, and/or Mitigation Measures

Utility relocation would only take place where shoulder widening would not leave enough area for the utility companies to maintain their facilities.

2.1.2 Visual/Aesthetics

Regulatory Setting

The California Environmental Quality Act establishes that it is the policy of the state to take all action necessary to provide the people of the state "with...enjoyment of *aesthetic*, natural, scenic, and historic environmental qualities." [California Public Resources Code Section 21001(b)]

Affected Environment

A Scenic Resource Evaluation was prepared in May 2006. The project area consists of rolling hills and valleys typical of the foothills of the San Joaquin Valley. In areas undisturbed by agriculture, blue oak and interior live oak are the dominant tree species. Annual grasslands are also present and are composed of grasses and forbs (non-grass herbaceous species). During winter and spring, the oak-covered hillsides

and grasslands are green and heavily vegetated with scrub and wildflowers. In summer and fall, they are golden and brown with dry grasses and trees.

Impacts

The proposed project would remove vegetation and excavate hills, resulting in new cut and fill slopes. Approximately 26 acres of oak woodland would be affected.

Avoidance, Minimization, and/or Mitigation Measures

To mitigate for visual impacts, the following measures should be implemented during construction:

- Use native trees and shrubs to replant excavation slopes, embankment slopes, and other disturbed areas. The Caltrans landscape architect would consult with the Caltrans biologist on which species and seed sources to use.
- Include native grass species in the erosion control mix.
- Construct slopes flatter than 1:2 when possible to provide optimum conditions for the application of revegetation materials (all proposed fill slopes steeper than 1:4 would require consultation with Caltrans' Landscape Architecture and Maintenance divisions).
- Round slopes to blend the tops and bottoms of embankments with existing contours.
- Avoid large trees when possible.
- Avoid exposing roots of trees adjacent to the project area.
- Establish environmentally sensitive areas to protect vegetation.
- Treat exposed rock to give the surfaces a weathered effect.

Oak mitigation is described in detail in this chapter under Section 2.3.1 Natural Communities.

2.1.3 Farmland

Regulatory Setting

The National Environmental Policy Act and the Farmland Protection Policy Act (United States Code 4201-4209; and its regulations, 7 Code of Federal Regulations Ch. VI Part 658) require federal agencies, such as the Federal Highway Administration, to coordinate with the Natural Resources Conservation Service if their activities may irreversibly convert farmland (directly or indirectly) to nonagricultural use. For purposes of the Farmland Protection Policy Act, farmland

includes prime farmland, unique farmland, and land of statewide or local importance. The California Environmental Quality Act requires the review of projects that would convert Williamson Act contract land to non-agricultural uses. The main purposes of the Williamson Act are to preserve agricultural land and to encourage open space preservation and efficient urban growth. The Williamson Act provides incentives to landowners through reduced property taxes to deter the early conversion of agricultural and open space lands to other uses.

Affected Environment

Land use in the project area consists of residential, agricultural, and industrial. The setting is rural with most residences far apart on large parcels. The average farm size in Amador County is 430 acres and 51.2 percent of the total land area of the county is devoted to agriculture. There is a winery and a rock quarry in the project area.

Ten parcels zoned as "agricultural" would be affected by the proposed project. The parcel numbers are: 005-230-005, 005-230-002, 005-220-002, 005-220-003, 005-230-011, 005-190-001, 005-190-002, 005-230-007, 005-190-005, and 005-190-017.

Most of the usable farmland on these parcels is flat grazing land with a small portion devoted to row crops. Four of the 10 affected parcels lie in areas of rocky and hilly terrain dominated by oak trees without any discernible agricultural activity. The types of farmland consist of rangeland and a vineyard. The vineyard is classified as prime farmland and is under Williamson Act contract. The rangeland parcels are classified as non-prime farmland.

Impacts

The proposed project would require the acquisition of linear "slivers" of property from 10 large parcels zoned as agricultural. The total amount of new state right-of-way to be acquired for the project is approximately 29 acres of farmland. Of the 29 acres to be converted, 1 acre is from a winery, 12.6 acres are grazing land pasture, and the remaining 15.4 acres are grassland/rocky oak woodland. The amount of land to be converted represents 0.015 percent of the total farmland acreage in Amador County (194,144 acres).

The Farmland Conversion Impact Rating (Form AD-1006) was used to evaluate effects to farmland from the proposed project (see Appendix E). The threshold for considering greater protection under the Farmland Protection Policy Act is 160 points. The total points for the proposed project was 152 out of 260 possible points.

Therefore, it was determined that the proposed project would not trigger consideration for greater protection.

Avoidance, Minimization, and/or Mitigation Measures

No mitigation is necessary.

2.1.4 Cultural Resources

Regulatory Setting

"Cultural resources" as used in this document refers to historic and archaeological resources.

Historical resources are considered under the California Environmental Quality Act, as well as California Public Resources Code Section 5024.1, which established the California Register of Historical Resources. Section 5024 of the Public Resources Code requires state agencies to identify and protect state-owned resources that meet California Register of Historic Places listing criteria. It further specifically requires Caltrans to inventory state-owned structures in its rights-of-way.

Affected Environment

A Historic Property Survey Report was prepared in March 2007 and includes the complete inventory of cultural resources in the project area. The project area was surveyed for cultural resources in 1999, 2000, and 2006. Records searches for previously identified cultural resources were requested in 1998 and 2005. The existing state right-of-way was surveyed and areas of proposed new right-of-way were surveyed where property owners granted access to Caltrans. The archaeological studies consisted of field surveys to identify potential sites and subsurface excavations to gather data from identified sites. A representative from the local Native American tribe (Ione Band of Miwok) monitored the excavations.

Impacts

Based on the data collected, it has been determined that one site in the project area has yielded (and remains likely to yield) data important to the understanding of prehistory and is, therefore, eligible for inclusion on the National Register of Historic Places. The site consists of two parts: the main site and a section that was cut out and exists within the right-of-way as a redeposit. The main site, which contains undisturbed archaeological deposits, would be protected as an environmentally sensitive area and avoided during construction. The redeposit would be minimally

affected during construction by vegetation removal. It would then be capped by additional roadway fill to accommodate shoulder widening. No excavation would take place in the redeposit.

A Historic Property Survey Report was sent to the State Historic Preservation Officer March 9, 2007 for review and concurrence with Caltrans' findings. Because Caltrans was denied permission to enter on several properties, further evaluation for cultural resources would be required after areas of new right-of-way have been acquired for the proposed project.

Avoidance, Minimization, and/or Mitigation Measures

The avoidance and minimization measures listed below would reduce project impacts to less than significant for the eligible site:

- The main site would be designated an environmentally sensitive area to protect it from disturbance during construction.
- An archaeologist who meets Caltrans' Professionally Qualified Staff criteria and representatives from the Ione Band of Miwok would monitor construction in the vicinity of the main site to ensure no disturbance takes place.

A Memorandum of Agreement will be prepared for review and approval by the State Historic Preservation Officer and the Federal Highway Administration to address the site and areas where Caltrans was denied permission to enter private property. These areas would be surveyed for cultural resources after the property is acquired for the proposed project and effects determinations would be made at that time.

If significant cultural resources were found in areas of new right-of-way that Caltrans did not have previous access to, then appropriate avoidance and/or mitigation measures would be implemented prior to construction. If cultural materials were discovered during construction, all earth-moving activity within and around the immediate discovery area would be diverted until a qualified archaeologist could assess the nature and significance of the find.

If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to Public Resources Code Section 5097.98, if the remains were thought to be Native American, the coroner would notify the Native American Heritage Commission, who would then

notify the Most Likely Descendent. The person who discovered the remains would contact Caltrans Environmental Branch in District 10 (Stockton) so that they may work with the Most Likely Descendent on the respectful treatment and disposition of the remains. Further provisions of Public Resources Code Section 5097.98 are to be followed as applicable.

2.2 Physical Environment

2.2.1 Hydrology and Floodplain

Regulatory Setting

Executive Order 11988 (Floodplain Management) directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the only practicable alternative. The Federal Highway Administration requirements for compliance are outlined in 23 Code of Federal Regulations 650 Subpart A.

To comply, the following must be analyzed:

- The practicability of alternatives to any longitudinal encroachments
- Risks of the action
- Impacts on natural and beneficial floodplain values
- Support of incompatible floodplain development
- Measures to minimize floodplain impacts and to preserve/restore any beneficial floodplain values affected by the project.

The 100-year floodplain is defined as "the area subject to flooding by the flood or tide having a one percent chance of being exceeded in any given year." An encroachment is defined as "an action within the limits of the 100-year floodplain."

Affected Environment

Most of the project area is designated "Zone X," which is defined as areas subject to flood events every 500 years. The area around Jackson Creek and Jackson Creek Overflow is designated as "Zone A," which is defined as an area subject to flood events every 100 years.

Impacts

Since the proposed project would not change the vertical profile of the roadway, there would not be a significant encroachment onto a floodplain.

Avoidance, Minimization, and/or Mitigation Measures

No mitigation is necessary.

2.2.2 Water Quality and Storm Water Runoff

Regulatory Setting

Section 401 of the Clean Water Act, the primary federal law regulating water quality, requires water quality certification from the state board or regional board when a project: 1) requires a federal license or permit (a Section 404 permit is the most common federal permit for Caltrans projects), and 2) would result in a discharge to waters of the United States.

Section 402 of the Clean Water Act establishes the National Pollutant Discharge Elimination System permit system for the discharge of any pollutant (except dredge or fill material) into waters of the United States. To ensure compliance with Section 402, the State Water Resources Control Board has developed and issued a National Pollutant Discharge Elimination System, Statewide Storm Water Permit to regulate storm water discharges from all of Caltrans' right-of-way, properties, and facilities. The permit regulates both storm water and non-storm water discharges during and after construction.

In addition, the State Water Resources Control Board issues the Statewide Permit for all of Caltrans' construction activities of 1 acre or greater. This permit also applies to a number of smaller projects that are part of a common plan of development exceeding 1 acre or projects that have the potential to significantly impair water quality. Caltrans projects subject to the Statewide Storm Water Permit require a Storm Water Pollution Prevention Plan, while all other projects, smaller than 1 acre, require a Water Pollution Control Program.

The California Environmental Protection Agency has delegated administration of the federal National Pollutant Discharge Elimination System program to the State Water Resources Control Board and nine regional boards. This project is located within the jurisdiction of the State Water Resources Control Board and the Central Valley Regional Water Quality Control Board.

Subject to Caltrans' review and approval, the contractor prepares both the Storm Water Pollution Prevention Plan and the Water Pollution Control Program. These identify construction activities that may cause pollutants in storm water and measures

to control these pollutants. Since neither the Water Pollution Control Program nor the Storm Water Pollution Prevention Plan is prepared at this time, the following discussion focuses on anticipated pollution sources or activities that may cause pollutants in the storm water discharges.

Additional laws regulating water quality include the Porter-Cologne Water Quality Act, Safe Drinking Water Act, and Pollution Prevention Act. State water quality laws are codified in the California Water Code, Health and Safety Code, and Fish and Game Code, Section 5650-5656.

Affected Environment

A Water Quality Study was completed in March 2006. There are two waterways that would be affected during construction: Jackson Creek and Jackson Creek Overflow. Jackson Creek is a perennial stream while Jackson Creek Overflow contains water intermittently throughout the year. Both of these water bodies are subject to the water quality laws noted above.

Impacts

With the implementation of minimization measures, no long-term impacts to the water quality of Jackson Creek and Jackson Creek Overflow are anticipated. The contractor would be responsible for eliminating potential impacts during construction as stated in Caltrans' Standard Specifications Section 7-1.01G.

Short-term surface water quality impacts may occur during construction. The primary impacts would occur from surface water exposed to loose soil during excavation, grading, and filling activities. The suspended solids, dissolved solids, and organic pollutants in surface water runoff could increase while nearby soils are disturbed and dust is generated. These short-term water quality impacts are minor and would not cause or substantially contribute to the impairment of a designated beneficial use.

In accordance with Section 402 of the Federal Clean Water Act, this project would be covered by the Caltrans National Pollutant Discharge Elimination System storm water permit (Order No. 99-06-DWQ, National Pollutant Discharge Elimination System No. CAS000003), issued by the State Water Resources Control Board. Under this permit, the statewide Storm Water Management Plan directs that potential impacts to water quality be addressed in the planning, design, and construction phases.

Avoidance, Minimization, and/or Mitigation Measures

The use of standard Best Management Practices during construction and operation of the new roadway would maintain the existing water quality without causing significant impacts. Examples of Best Management Practices include, but are not limited to, the following measures:

- Physically protecting areas that provide important water quality benefits or are particularly susceptible to erosion or sediment loss.
- Limiting land disturbance such as clearing and grading to reduce erosion and sediment loss.
- Limiting disturbance of natural drainage features and vegetation.
- Preparing and implementing an approved storm water pollution prevention plan.
- Ensuring proper storage and disposal of toxic material.
- Incorporating pollution prevention into operation and maintenance procedures to reduce pollutants in road surface runoff.
- Developing and implementing runoff pollution controls for existing road systems to reduce pollutant concentrations and volumes.

2.2.3 Paleontology

Regulatory Setting

Paleontology is the study of life in past geologic time based on fossil plants and animals. Although there is no federal law that specifically protects natural or paleontological resources, there are a number of laws that have been interpreted to do so—the primary law being the Antiquities Act of 1906, which protects historic or prehistoric ruins or monuments and objects of antiquity. This act has been amended to specifically allow funding for paleontological mitigation. Under California law, paleontological resources are protected by the California Environmental Quality Act, the California Administrative Code, Title 14, Section 4306 et seq., and Public Resources Code Section 5097.5.

Affected Environment

Paleontology studies were completed in November 2006. The proposed project area is located on the eastern edge of the Sacramento Valley near the westernmost foothills of the Sierra Nevada. The ground surface in the project area is rolling hills with relatively flat valley bottoms and a range in elevation of between 180 and 460 feet.

Important fossil deposits are known to exist in the project area in the sediments of the Ione Formation, Valley Springs Formation, Mehrten Formation, and North Merced Gravel. All of these formations have a high potential for producing rare and unique paleontological resources.

Impacts

Impacts to fossil deposits could result from vegetation clearing, grading, widening of road cuts, excavation, or any other earth-moving activity that disturbs or buries previously undisturbed fossiliferous sediments.

Avoidance, Minimization, and/or Mitigation Measures

Impacts to paleontological resources would be mitigated by the preparation of a monitoring and mitigation program prior to construction. A qualified paleontologist would produce the monitoring and mitigation program. Some of the key features of the program include the following:

- Preconstruction coordination with the contractor and resident engineer and worker training on proper identification and notification when fossils are uncovered.
- Construction monitoring
- Emergency discovery procedures
- Sampling and data recovery
- Preparation, identification, and analysis of any fossil specimens salvaged
- Museum storage of any specimens and data recovered
- A final paleontological mitigation report

2.2.4 Hazardous Waste Materials

Regulatory Setting

Hazardous materials and hazardous wastes are regulated by many state laws. These include not only specific statutes governing hazardous waste, but also a variety of laws regulating air and water quality, human health, and land use.

Hazardous waste in California is regulated primarily under the authority of the federal Resource Conservation and Recovery Act of 1976 and the California Health and Safety Code. Other California laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning.

Worker health and safety and public safety are key issues when dealing with hazardous materials that may affect human health and the environment. Proper disposal of hazardous material is vital if it is disturbed during project construction.

Affected Environment

A study was conducted for aerially deposited lead in June 2004. The findings indicated that lead levels in the soil fall below the threshold where remediation would be required. There are no restrictions on the reuse of soil during construction.

Impacts

The proposed project is not anticipated to create any significant hazardous waste impacts.

Avoidance, Minimization, and/or Mitigation Measures

Although lead levels in the project area fall below regulatory thresholds, a lead compliance plan would be required from the contractor to protect workers from the low levels of lead that exist in the soil.

2.3 Biological Environment

The following discussion is based on the Natural Environment Study completed in January 2007. Study methods consisted of a review of resource agency databases and inventories of special-status species, agency coordination and professional contacts, protocol-level surveys, field reconnaissance, assessment of vegetation and habitat characteristics, and evaluation of impacts to identified resources. These studies were undertaken to meet state and federal environmental regulations. A complete list of special-status plants and animals with the potential to occur in the project area can be found in Appendix D.

2.3.1 Natural Communities

Regulatory Setting

This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. This section also includes information on wildlife corridors, fish passage, and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or

daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value.

Wetlands and other waters are discussed in Section 2.3.2. Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act are discussed in Threatened and Endangered Species, Section 2.3.5.

Affected Environment

Blue oak (*Quercus douglasii*) woodland is the dominant community in the project area. Blue oak woodlands are usually found in well-drained soils in Mediterranean climates of California below 3,000 feet. Although dominated by blue oak, this community includes other oak species such as valley oak (*Quercus lobata*) and interior live oak (*Quercus wislizenii*) as well as foothill pine (*Pinus sabiniana*). The number of trees in an area can vary from open grasslands with few trees to fairly dense woodlands with shrubby understories.

" Oak woodland" is defined as tree habitat with five or more oak trees per acre, except for valley oaks (*Quercus lobata*) that include one or more trees per acre. An "oak" refers to a native tree species in the genus *Quercus* that is five inches or greater in diameter at breast height. Oak woodlands containing blue oak (*Quercus douglasii*), Engelmann oak (*Quercus englemannii*), coast live oak (*Quercus agrifolia*), and valley oak (*Quercus lobata*) are protected under Senate Concurrent Resolution No. 17. This resolution directs all state agencies to preserve and protect native oak woodlands to the greatest extent possible. The California Department of Fish and Game regional offices enforce implementation of Senate Concurrent Resolution No. 17 as a natural resources trustee agency under the California Environmental Quality Act. Senate Bill 1334 (approved September 24, 2004) directs counties to include mitigation for loss of oak woodlands in their land use planning.

Amador County was contacted in November 2006 regarding the local oak woodland management plan. The county stated that the plan is not complete but that project-level oak mitigation plans are required for proposed projects.

Jackson Creek provides access to potential spawning areas for Central Valley steelhead (*Oncorhynchus mykiss*) and Central Valley fall/late fall-run Chinook salmon (*Oncorhynchus tshawytscha*).

Mule deer herd movements have also been recorded year-round underneath the spans of the Jackson Creek Bridge.

Impacts

A total of 26 acres of oak woodland would be affected by the proposed project due to cut and fill, grading, and trenching. The acreage is broken down as follows:

- 16 acres blue oak woodland
- 8.6 acres live oak woodland
- 0.5 acre valley oak woodland
- 0.9 acre riparian habitat, which contains valley oaks

Work associated with widening Jackson Creek Bridge may interfere with the movements of Central Valley steelhead, Central Valley fall/late fall-run Chinook salmon, and mule deer.

Avoidance, Minimization, and/or Mitigation Measures

Oak trees within the project area that do not have to be removed as a direct result of construction activities would be protected during construction by protective fencing. Mitigation to compensate for the loss of oaks would be developed with concurrence from the California Department of Fish and Game. Mitigation would be achieved by onsite replacement planting and/or purchase and preservation of nearby oak woodland habitat (0.5 acre of riparian oak woodland is currently reserved at the Beach Lake Mitigation Bank).

A special provision for avoiding impacts to mule deer herd movements would be added to the construction contract. The special provision would keep the bridge spans clear of obstruction during non-working hours. This would act as a safety measure to keep deer from coming up to the road and potentially interfering with traffic.

See Section 2.3.5 Threatened and Endangered Species, for restrictions on work in Jackson Creek to protect the potential spawning movements of Central Valley steelhead and Central Valley fall/late fall-run Chinook salmon.

2.3.2 Wetlands and Other Waters

Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Clean Water Act (33 United States Code 1344) is the primary

law regulating wetlands and waters. The Clean Water Act regulates the discharge of dredged or fill material into waters of the United States, including wetlands. Waters of the United States include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce. To classify wetlands for the purposes of the Clean Water Act, a three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils subject to saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the Clean Water Act.

Section 404 of the Clean Water Act establishes a regulatory program that provides that no discharge of dredged or fill material can be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the U.S. Army Corps of Engineers with oversight by the Environmental Protection Agency.

The Executive Order for the Protection of Wetlands (Executive Order 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, this executive order states that a federal agency, such as the Federal Highway Administration, cannot undertake or provide assistance for new construction located in wetlands unless the head of the agency finds: 1) that there is no practicable alternative to the construction and 2) the proposed project includes all practicable measures to minimize harm.

At the state level, wetlands and waters are regulated primarily by the California Department of Fish and Game and the Regional Water Quality Control Boards. In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission) may also be involved. Sections 1600-1607 of the Fish and Game Code require any agency that proposes a project that would substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify the California Department of Fish and Game before beginning construction. If the California Department of Fish and Game determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement would be required. The California Department of Fish and Game's jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the Army Corps of Engineers may or may not be

included in the area covered by a Streambed Alteration Agreement obtained from the Department of Fish and Game.

The Regional Water Quality Control Boards were established under the Porter-Cologne Water Quality Control Act to oversee water quality. The Regional Water Quality Control Boards also issue water quality certifications in compliance with Section 401 of the Clean Water Act. Please see the Water Quality section for additional details.

Affected Environment

The watershed of the project area consists of Jackson Creek, Jackson Creek Overflow, unnamed streams, seasonal drainages, and seasonal wetlands. Jackson Creek is the main water body in the project area. It receives year-round flow regulated by outflows from Lake Amador. Downstream, Jackson Creek flows into Dry Creek, which flows into the Mokelumne River, which drains into the San Joaquin River, eventually discharging into the San Joaquin Delta. Jackson Creek Overflow is just west of Jackson Creek and receives water from Jackson Creek during high flows in winter and spring. Jackson Creek Overflow supports year-round wetland habitat.

Southwest of Jackson Creek Overflow the watershed consists of temporary drainages with seasonal pools (called "vernal pools") in depressed areas from post mile 0.0 to post mile 2.95.Temporary drainages, unnamed streams, and seasonal wetlands flow under State Route 88 through culverts that eventually connect to Jackson Creek west of the project area. Ponding exists on both sides of State Route 88 within the project area at existing culverts.

Impacts

An approximate estimation of waters of the U.S. and wetland impacts was calculated by using wetland delineation datasheets, aerial photography, geographic information systems software, and onsite evaluation. Table 2.1 lists wetlands and other waters that would be affected by the proposed project.

Table 2.1 Affected Wetlands and Other Waters

Type of Impact	Vernal Pools/Swales	Wetlands	Other Waters	Total Acreage
Permanent (fill)	0.18 acre	0.14 acre	0.08 acre	0.4 acre
Temporary (construction)	0.3 acre	0.48 acre	0.15 acre	0.93 acre

Anticipated permanent fill is estimated to be 0.4 acre in waters of the U.S. This includes two perennial streams (Jackson Creek and Jackson Creek Overflow) that fall under the jurisdiction of the California Department of Fish and Game. It also includes many small wetlands throughout the project area from Bamert Road to the end of the project at State Route 124. These are under the jurisdiction of the Army Corps of Engineers.

Approximately 0.48 acre of vernal pools would be affected between post miles 2.25 and 2.95 (see Figure 2-1). These are under the jurisdiction of the U.S. Fish and Wildlife Service due to the presence of federally listed species.

Avoidance, Minimization, and/or Mitigation Measures

The proposed project has been designed to minimize and avoid impacts to wetlands and other waters. Caltrans would implement the following Best Management Practices to further avoid and minimize impacts to wetlands and other waters of the U.S.:

- Vehicle staging would only occur on existing roadway and pullouts.
- Chemicals, lubricants, and petroleum products must be closely monitored and precautions would be used to prevent leakage or spills. Cleanup of spills would take place immediately.
- Wetlands or other waters adjacent to construction activities would be designated as Environmentally Sensitive Areas to prevent vehicle storage or staging of materials in wetlands.
- Habitat temporarily affected by project activities would be restored to its original condition by replanting and grading.
- Permanent impacts to wetlands would be mitigated through the purchase of wetland mitigation credits to comply with the Clean Water Act and 404(b)(1) standard of no net loss of wetlands. Some wetland credits have already been purchased at the Beach Lake Mitigation Bank (0.015 acre seasonal and 0.020 acre perennial).

Vernal pool species would also be affected by the proposed project. The credits (or acres) purchased would compensate for loss of both wetlands and vernal pools. The total number of credits (acreage) required would be determined during consultation with the U.S. Fish and Wildlife Service.

A Nationwide 404 Permit would be required from the Army Corps of Engineers for permanent fill of wetlands and a Section 1602 Streambed Alteration Agreement would be required from the California Department of Fish and Game for work in Jackson Creek and Jackson Creek Overflow.

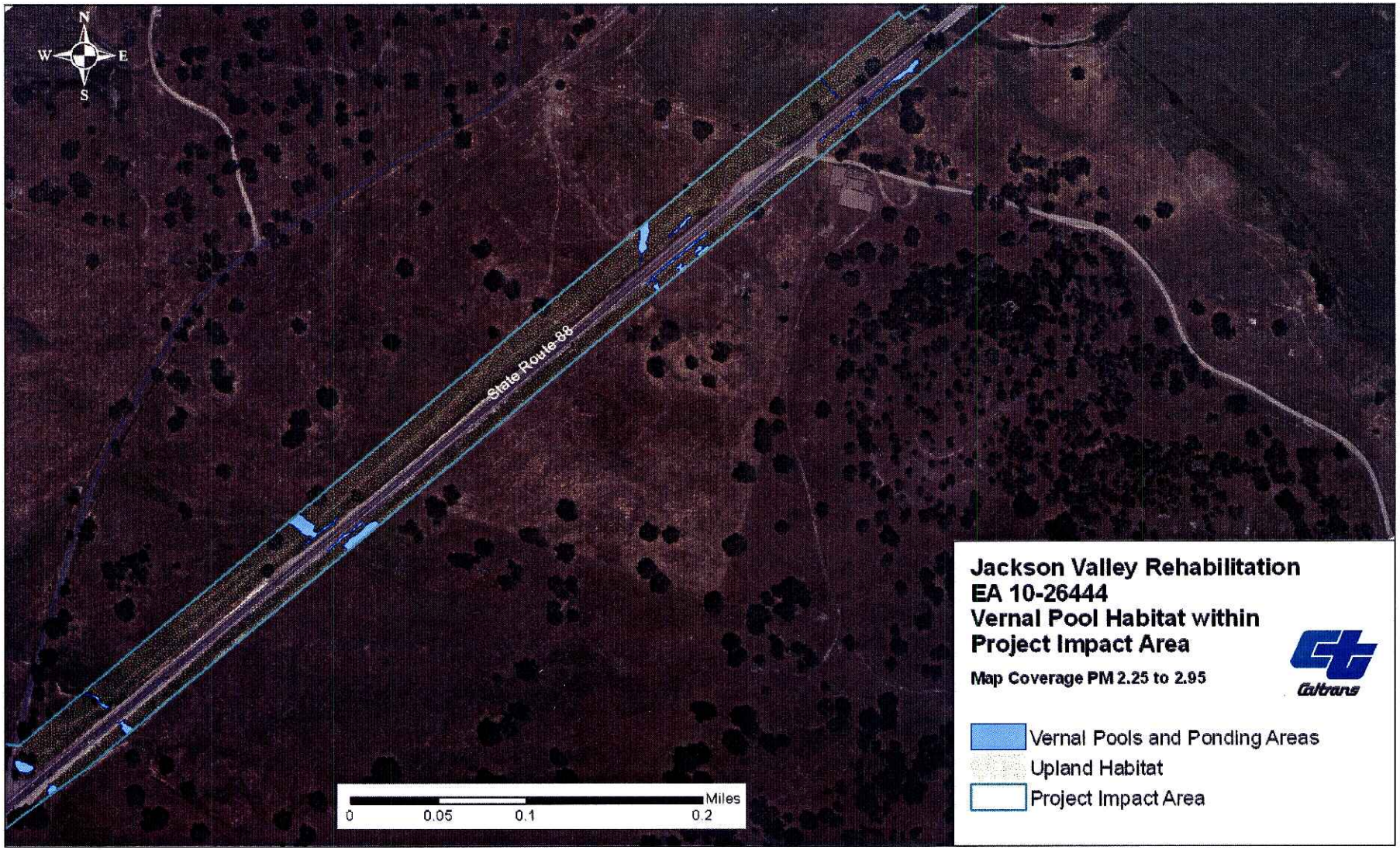

Figure 2-1 Affected Vernal Pool Habitat

2.3.3 Plant Species

Regulatory Setting

The U.S. Fish and Wildlife Service and California Department of Fish and Game share regulatory responsibility for the protection of special-status plant species. "Special-status" species are selected for protection because they are rare and/or subject to population and habitat declines. Special-status is a general term for species that are afforded varying levels of regulatory protection. The highest level of protection is given to threatened and endangered species; these are species that are formally listed or proposed for listing as endangered or threatened under the Federal Endangered Species Act and/or the California Endangered Species Act. Please see the Threatened and Endangered Species, Section 2.3.5, in this document for detailed information regarding these species.

This section of the document discusses all the other special-status plant species, including California Department of Fish and Game fully-protected species and species of special concern, U.S. Fish and Wildlife Service candidate species, and non-listed California Native Plant Society rare and endangered plants.

The regulatory requirements for the Federal Endangered Species Act can be found at United States Code 16, Section 1531, et. seq. See also 50 Code of Federal Regulations Part 402. The regulatory requirements for the California Endangered Species Act can be found at California Fish and Game Code, Section 2050, et. seq. Caltrans projects are also subject to the Native Plant Protection Act, found at Fish and Game Code, Section 1900-1913, and the California Environmental Quality Act, Public Resources Code, Sections 2100-21177.

Affected Environment

Blue oak (*Quercus douglasii*) is the dominant oak species in the project area. Other oak species that occur are valley oak (*Quercus lobata*) and interior live oak (*Quercus wislizenii*). See Section 2.3.1 Natural Communities for a discussion of oak woodlands.

Six special-status plant species have the potential to occur in vernal pools in the project area, but were not observed during surveys. See Appendix D, Special-Status Species List, for more information.

Impacts

Impacts to vernal pools are anticipated between post mile 2.25 and post mile 2.95 (see Figure 2-1; this is discussed in greater detail in Section 2.3.5 Threatened and Endangered Species). Within these limits, if vernal pool plant species were present they would be affected by construction activities.

Impacts to oak trees are discussed in Section 2.3.1 Natural Communities.

Avoidance, Minimization, and/or Mitigation Measures

Impacts to vernal pools between post mile 2.25 and post mile 2.95, where special-status plant species could occur, would be mitigated through purchase of offsite mitigation bank credits. Vernal pools adjacent to the project area, which could be affected indirectly, would be designated as environmentally sensitive areas to prevent potential disturbance.

Mitigation measures for oak trees are discussed in Section 2.3.1 Natural Communities.

2.3.4 Animal Species

Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration Fisheries, and the California Department of Fish and Game are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with wildlife not listed or proposed for listing under the state or federal Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in Section 2.3.5. All other special-status animal species are discussed here, including California Department of Fish and Game fully protected species and species of special concern, and the U.S. Fish and Wildlife Service or National Oceanic and Atmospheric Administration Fisheries Service candidate species.

Federal laws and regulations pertaining to wildlife include the following:

- National Environmental Policy Act
- Migratory Bird Treaty Act
- Fish and Wildlife Coordination Act

State laws and regulations pertaining to wildlife include the following:

- California Environmental Quality Act
- Sections 1601 – 1603 of the Fish and Game Code
- Section 4150 and 4152 of the Fish and Game Code

Affected Environment

The following special-status animal species have the potential to occur in the project area:

- California linderiella (*Linderiella occidentalis*) is a California endemic fairy shrimp species listed as a federal species of concern. Though they have not been directly observed, their presence is inferred due to recorded sightings nearby and the presence of suitable habitat (vernal pools) in the project area.
- Midvalley fairy shrimp (*Branchinecta mesovallensis*) is also listed as a federal species of concern. Though they have not been directly observed, their presence is inferred due to recorded sightings nearby and the presence of suitable habitat (vernal pools) in the project area.
- Western spadefoot toad (*Scaphiopus hammondii*), a state species of concern, has not been observed directly in the project area but is likely to occur based on recorded sightings nearby and the presence of suitable habitat.
- Western pond turtle (*Clemmys marmorata*), a state species of concern, has been observed within the project watershed and may be found in the project area in Jackson Creek or Jackson Creek Overflow.
- Burrowing owl (*Athene cunicularia*), a state species of concern, was not directly observed in the project area but may occur due to recorded sightings nearby and the presence of suitable habitat.
- Various species of bats are considered sensitive by Department of Fish and Game and have been observed roosting underneath Jackson Creek and Jackson Creek Overflow bridges.
- Bird species protected by the Migratory Bird Treaty Act can be found year-round in the project area. Birds that could be found nesting in the project area include great blue heron, great egret, barn swallow, cliff swallow, red-tailed hawk, tri-colored blackbird, and loggerhead shrike. Migratory birds that could use the project area for roosting and foraging include bald eagle, golden eagle, ferruginous hawk, and prairie falcon.

Impacts

Excavation or placement of fill in vernal pools could result in mortality of western spadefoot toads and/or their larvae and eggs. Filling of vernal pools may also destroy California linderiella or their eggs. Work in the channel of Jackson Creek or Jackson Creek Overflow could result in mortality of western pond turtle. Construction activities in upland areas could result in destruction of burrowing owls and/or their nesting habitat. Work on the bridges spanning Jackson Creek and Jackson Creek Overflow could disturb roosting bats. Removal or alteration of trees, shrubs, or man-made structures used by migratory birds may interfere with their nesting and reproduction.

Avoidance, Minimization, and/or Mitigation Measures

Measures to minimize impacts to wetlands and vernal pools would also apply to western spadefoot toad, California linderiella, and midvalley fairy shrimp (see section 2.3.5 Threatened and Endangered Species).

The following measures would be implemented to minimize impacts to western pond turtle:

- Work in Jackson Creek would be restricted to between June 1 and September 15 (this is the same work window noted in Section 2.3.5 for steelhead and salmon).
- Habitat adjacent to the project area would be designated an environmentally sensitive area.
- Surveys would be conducted between 14 and 30 days before construction begins to determine if western pond turtles are within the project area. If found, they would be moved outside the project area in consultation with California Department of Fish and Game. The Resident Engineer should notify a Caltrans biologist immediately if a western pond turtle is observed during construction.
- Fencing would be installed around work areas to prevent western pond turtles from migrating into the area.
- Habitat impacted by project activities would be restored to its original condition by grading and replanting the affected area.

Exclusionary measures would be placed on the bridges prior to construction to prevent bats from roosting in the hinge spaces. These measures would also prevent swallow nesting underneath the bridges. These measures should be implemented prior to February 1 before swallows begin building nests for the breeding season.

Preconstruction surveys would be required for burrowing owls and migratory birds. If nests are found and are being used during the breeding season (February 1 to September 1), a buffer zone would be established and the area around the nest would be fenced off until the young have fledged. Vegetation removal should take place before February 1 to prevent nesting activity and construction delays.

2.3.5 Threatened and Endangered Species

Regulatory Setting

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act: 16 United States Code, Section 1531, et seq. Also, see 50 Code of Federal Regulations Part 402. This act and subsequent amendments provide for the conservation of endangered and threatened species and the ecosystems on which they depend. Under Section 7 of this act, federal agencies, such as the Federal Highway Administration, are required to consult with the U.S. Fish and Wildlife Service and the National Oceanic and Atmospheric Administration Fisheries Service to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 is a Biological Opinion or an incidental take statement. Section 3 of the Federal Endangered Species Act defines take as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or any attempt at such conduct."

California has enacted a similar law at the state level, the California Endangered Species Act, California Fish and Game Code, Section 2050, et seq. The California Endangered Species Act emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project-caused losses of listed species populations and their essential habitats. The California Department of Fish and Game is the agency responsible for implementing the California Endangered Species Act and is a responsible agency under the California Environmental Quality Act. Section 2081 of the Fish and Game Code prohibits "take" of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." The California Endangered Species Act allows for take incidental to otherwise

lawful development projects; for these actions an incidental take permit is issued by the California Department of Fish and Game. For projects requiring a Biological Opinion under Section 7 of the Federal Endangered Species Act, the California Department of Fish and Game may also authorize impacts to the California Endangered Species Act species by issuing a Consistency Determination under Section 2080.1 of the Fish and Game Code.

Affected Environment

Two federally listed animal species may be affected by the proposed project: vernal pool fairy shrimp (*Branchinecta lynchi*—listed as threatened) and California tiger salamander (*Ambystoma californiense*—listed as threatened). For these species, a "likely to adversely affect" determination has been made for the purposes of formal consultation with the U.S. Fish and Wildlife Service. A "may effect, not likely to adversely affect" determination has been made for vernal pool tadpole shrimp (*Lepidurus packardi* – listed as endangered).

Nine seasonal pools (called "vernal pools") with a total area of 0.48 acre have been found in the project area between post mile 2.25 and post mile 2.95 (see Figure 2-1). These pools serve as habitat for the complete life cycle of the vernal pool fairy shrimp and tadpole shrimp. They are also breeding habitat for the California tiger salamander, which uses the pools in the winter to breed and nearby mammal burrows to hibernate during the summer. The area referred to in Figure 2-1 as "upland habitat" is the California tiger salamander hibernation area.

Central Valley steelhead (*Oncorhynchus mykiss* – listed as threatened) and Central Valley fall/late fall-run Chinook salmon (*Oncorhynchus tshawytscha* – a candidate for the threatened and endangered species list) may use Jackson Creek to reach upstream spawning habitat. A "not likely to adversely affect" determination has been made for these two fish species. The Federal Highway Administration received a concurrence letter from the National Oceanic and Atmospheric Administration Fisheries Service in August 2002 stating that the project would not adversely affect federally listed Central Valley steelhead and Central Valley fall/late fall-run Chinook salmon with the avoidance and minimization measures proposed by Caltrans.

Two plant species listed as endangered by the California Department of Fish and Game have the potential to occur in vernal pools in the project area, but were not observed during surveys. Refer to Appendix D, Special-Status Species List, for more information.

Impacts

Excavation or placement of fill material within the vernal pools could result in direct mortality of vernal pool fairy shrimp, vernal pool tadpole shrimp, and/or California tiger salamander. A total of 0.48 acre of vernal pools within the cut and fill limits would be directly affected. The total acreage impacts to upland habitat for California tiger salamander would be 2.37 acres of permanent direct impacts (cut and fill) and 8.01 acres of temporary direct impacts (construction activity only).

Work in the channel of Jackson Creek may interfere with the movements of Central Valley steelhead and Central Valley fall/late fall-run Chinook salmon.

Avoidance, Minimization, and/or Mitigation Measures

The following measures would be implemented between post mile 0.0 and post mile 2.95 to minimize impacts to vernal pool fairy shrimp, vernal pool tadpole shrimp, and California tiger salamander:

- Vehicle staging would only occur on existing roadways and pullouts.
- Chemicals, lubricants, and petroleum products must be closely monitored to prevent spills and/or leakage. If spills occur, cleanup would take place immediately.
- Any sensitive habitat adjacent to the construction area would be designated an environmentally sensitive area and fenced off to prevent construction-related impacts.
- Habitat temporarily impacted by construction would be restored to its original condition by grading and replanting the affected area.

Permanent impacts to vernal pools would be compensated for through the purchase of mitigation credits at a U.S. Fish and Wildlife Service approved mitigation bank. Permanent and temporary impacts to California tiger salamander upland habitat would also be compensated for at an approved mitigation bank. Formal consultation with the U.S. Fish and Wildlife Service under Section 7 of the federal Endangered Species Act is scheduled to be initiated in Spring 2007.

Work in the channel of Jackson Creek would be restricted to between June 1 to September 15 to avoid interference in the potential spawning movements of Central Valley steelhead and Central Valley fall/late fall-run Chinook salmon. Best Management Practices to maintain water quality in Jackson Creek would also minimize impacts to steelhead and salmon (see Section 2.2.1 Water Quality).

2.4 Construction Impacts

Temporary construction impacts would result from dust and noise. Traffic delays are also anticipated due to lane closures.

Avoidance, Minimization, and/or Mitigation Measures

Caltrans Standard Specifications pertaining to dust control and dust palliative requirements are a required part of all construction contracts and should effectively reduce and control emission impacts during construction. The provisions of Caltrans Standard Specifications, Section 7-1/OF "Air Pollution Control" and Section 10 "Dust Control" require the contractor to comply with the Amador County Air Pollution Control District's rules, ordinances, and regulations.

Standard Provision Section 7-1.01I of the Standard Specifications would be included in the construction contract to minimize noise impacts.

A Transportation Management Plan has been prepared that includes a public awareness campaign through the District 10 Public Information Office and Changeable Message Signs to keep the public informed of project construction and traffic delays.

Chapter 3 Comments and Coordination

Early and continuing coordination with the general public and appropriate public agencies is an essential part of the environmental process to determine the scope of environmental documentation, the level of analysis, potential impacts and mitigation measures, and related environmental requirements. Agency consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including project development team meetings, interagency coordination meetings, and discussion and correspondence with property owners. This chapter summarizes the results of Caltrans' efforts to fully identify, address, and resolve project-related issues through early and continuing coordination.

- Concurrence from the State Historic Preservation Officer for the identification and evaluation of cultural resources was requested on March 9, 2007. Consultation with the Office of Historic Preservation has been ongoing during preparation of the cultural studies.
- California Department of Fish and Game was contacted December 2006 and January 2007 regarding movements of local deer herds through the project area. The presence of a local deer herd was confirmed and migration corridors were identified.
- Amador County was contacted November 2006 regarding the local oak woodland management plan. The county stated that the plan is not complete but that project-level oak mitigation plans are required for proposed projects.
- Caltrans met with the tribal council of the Ione Band of Miwok Indians in November 2006 to present current project plans and discuss potential concerns with effects to an archaeological site in the project area. No objections to the project were raised by any members of the council.
- Caltrans met with representatives from the Ione Band of Miwok Indians and the Anthropological Studies Center at Sonoma State University in March and April 2004 to discuss Extended Phase I and Phase II work at the CA-AMA-56 redeposit. Don Villa, Jr. of Ione monitored the Extended Phase I and Phase II work at the site.
- The Federal Highway Administration received a concurrence letter from the National Oceanic and Atmospheric Administration Fisheries Service in August 2002 stating that the project would not adversely affect federally listed Central Valley steelhead and Central Valley fall/late fall-run Chinook salmon with the avoidance and minimization measures proposed by Caltrans.

Chapter 4 List of Preparers

The following Caltrans Central Region staff prepared this document:

Phillip Chick, Associate Environmental Planner (Archaeology). B.S. Anthropology, California State University, Fresno; 9 years experience in California archaeology. Contribution: Assisted in preparation of cultural studies.

Ken Doran, Engineering Geologist. M.S. Geology, California State University, Fresno; 6.5 years experience in environmental impact assessment. Contribution: Contract Manager for Paleontological Assessment and Mitigation Plan.

Robyn Fong, Associate Landscape Architect. B.S. Landscape Architecture, California Polytechnic State University, San Luis Obispo; 8.5 years experience in visual impact assessment. Contribution: Prepared Scenic Resource Evaluation.

Brian R. Gassner, Associate Environmental Planner (Archaeology). B.A. Anthropology, Northern Arizona University. 10.5 years archaeological field studies experience, 8.5 years California archaeological experience. Contribution: Lead project archaeologist and prepared Historic Property Survey Report.

Kelly Hobbs, Associate Environmental Planner (Architectural History). B.A. History, California State University, Fresno. 9 years experience in central California history and preparation of cultural resource compliance reports. Contribution: conducted review of built environment resources in the project area.

Reagan O'Leary, Environmental Planner (Natural Sciences). B.S. Biology (Ecology), California State University, Fresno; 1.5 years experience in environmental impact assessment, 5 years experience in Endangered Species Management and Studies. Contribution: Prepared Natural Environment Study.

Michael Robinson, Associate Environmental Planner. M.A. Geography, California State University, Northridge; A.B.D. Geography, University of California, Berkeley. 22.5 years experience in environmental impact assessment. Contribution: Prepared and managed preparation of hazardous waste studies.

Charles Walbridge, Associate Environmental Planner. B.S. Biology (Ecology), California State University, Fresno. 7.5 years experience in environmental impact assessment. Contribution: Prepared the Initial Study.

Appendix A California Environmental Quality Act Checklist

The following checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. The California Environmental Quality Act impact levels include "potentially significant impact," "less than significant impact with mitigation," "less than significant impact," and "no impact."

Supporting documentation of all California Environmental Quality Act checklist determinations is provided in Chapter 2 of this Initial Study. Documentation of "No Impact" determinations is provided at the beginning of Chapter 2. Discussion of all impacts, avoidance, minimization, and/or mitigation measures is under the appropriate topic headings in Chapter 2.

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
AESTHETICS - Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☑
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic building within a state scenic highway?	☐	☐	☐	☑
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☑	☐
d) Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?	☐	☐	☐	☑
AGRICULTURE RESOURCES - In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☑	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☑
c) Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	☐	☐	☐	☑
AIR QUALITY - Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☑

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	☑
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	☑
d) Expose sensitive receptors to substantial pollutant concentration?	☐	☐	☐	☑
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☑
BIOLOGICAL RESOURCES - Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☑	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☑	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☑	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☑	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☑	☐	☐

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☑
CULTURAL RESOURCES - Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☑	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☐
Archaeological resources are considered "historical resources" and are covered under Cultural Resources (a) above.				
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☑	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☑	☐
GEOLOGY AND SOILS - Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☑
ii) Strong seismic ground shaking?	☐	☐	☐	☑
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☑
iv) Landslides?	☐	☐	☐	☑
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☑
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☑

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.	☐	☐	☐	☑
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☑
HAZARDS AND HAZARDOUS MATERIALS - Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☑
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☑
c) Emit hazardous emissions or handle hazardous or acutely hazardous material, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☑
d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☑
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☑
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☑
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☑

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☑
HYDROLOGY AND WATER QUALITY - Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☐	☐	☑	☐
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☐	☑
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or off-site?	☐	☐	☐	☑
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off-site?	☐	☐	☐	☑
e) Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	☐	☑
f) Otherwise substantially degrade water quality?	☐	☐	☐	☑
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	☐	☑
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☐	☐	☑

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☐	☐	☑
j) Result in inundation by a seiche, tsunami, or mudflow?	☐	☐	☐	☑
LAND USE AND PLANNING - Would the project:				
a) Physically divide an established community?	☐	☐	☐	☑
a) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☑
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☑
MINERAL RESOURCES - Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☑
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☑
NOISE - Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☑
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☑
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☑

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☑
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☑
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☑
POPULATION AND HOUSING - Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☑
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☑
PUBLIC SERVICES -				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☑
Police protection?	☐	☐	☐	☑
Schools?	☐	☐	☐	☑

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
Parks?	☐	☐	☐	☑
Other public facilities?	☐	☐	☐	☑
RECREATION -				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☑
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	☐	☐	☐	☑
TRANSPORTATION/TRAFFIC - Would the project:				
a) Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	☐	☐	☐	☑
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☑
c) Result in a change in air traffic patters, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☑
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☑
e) Result in inadequate emergency access?	☐	☐	☐	☑
f) Result in inadequate parking capacity?	☐	☐	☐	☑
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	☐	☑
UTILITY AND SERVICE SYSTEMS - Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☑

	Potentially significant impact	Less than significant impact with mitigation	Less than significant impact	No impact
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☑
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☑
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☑
e) Result in determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☑
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☑
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☑

MANDATORY FINDINGS OF SIGNIFICANCE -

a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☑	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☐	☑
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☑

Appendix B Title VI Policy Statement

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

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Flex your power!
Be energy efficient!

January 14, 2005

TITLE VI
POLICY STATEMENT

The California Department of Transportation under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California shall, on the grounds of race, color, national origin, sex, disability, and age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

WILL KEMPTON
Director

"Caltrans improves mobility across California"

Appendix C Minimization and/or Mitigation Summary

Biology

Oak Woodlands

Oak trees within the project area that do not have to be removed as a direct result of construction activities would be protected during construction by protective fencing. Loss of oak woodlands would be mitigated onsite with replacement plantings and/or with the purchase and preservation of oak habitat nearby. Some riparian oak woodland credits have been reserved at Beach Lake Mitigation Bank (0.5 acre).

Migration Corridors

A special provision for avoiding impacts to mule deer herd movements would be added to the construction contract. The special provision would keep the bridge spans clear of obstruction during non-working hours. This would act as a safety measure to keep deer from coming up to the road and potentially interfering with traffic. Work in the channel of Jackson Creek would be restricted to between June 1 to September 15 to avoid interference in the potential spawning movements of Central Valley steelhead and Central Valley fall/late fall-run Chinook salmon. Best Management Practices to maintain water quality in Jackson Creek would also minimize impacts to steelhead and salmon (see Section 2.2.1 Water Quality).

Wetlands and Other Waters

The proposed project has been designed to minimize and avoid impacts to wetlands and other waters. Caltrans would implement the following Best Management Practices to further avoid and minimize impacts to wetlands and other waters of the U.S.:

- Vehicle staging would only occur on existing roadway and pullouts.
- Chemicals, lubricants, and petroleum products must be closely monitored and precautions would be used to prevent leakage or spills. Cleanup of spills would take place immediately.
- Wetlands or other waters adjacent to construction activities would be designated as Environmentally Sensitive Areas to prevent vehicle storage or staging of materials in wetlands.
- Habitat temporarily affected by project activities would be restored to its original condition through grading and replanting.

- Permanent impacts to wetlands would be mitigated through the purchase of wetland mitigation credits to comply with the Clean Water Act and 404(b)(1) standard of no net loss of wetlands. Some wetland credits have already been purchased at the Beach Lake Mitigation Bank (0.015 acre seasonal and 0.020 acre perennial).

Vernal pool species would also be affected by the proposed project. The credits (or acres) purchased would compensate for loss of both wetlands and vernal pools. The total number of credits (acreage) required would be determined during consultation with the U.S. Fish and Wildlife Service.

Special-status animal species
Measures to minimize impacts to wetlands and vernal pools would also apply to western spadefoot toad, California linderiella, and midvalley fairy shrimp.

The following measures would be implemented to minimize impacts to western pond turtle:

- Work in Jackson Creek would be restricted to between June 1 and September 15.
- Habitat adjacent to the project area would be designated an environmentally sensitive area.
- Surveys would be conducted between 14 and 30 days before construction begins to determine if western pond turtles are within the project area. If found, they would be moved outside the project area in consultation with California Department of Fish and Game. The Resident Engineer should notify a Caltrans biologist immediately if a western pond turtle is observed during construction.
- Fencing would be installed around work areas to prevent western pond turtles from migrating into the area.
- Habitat impacted by project activities would be restored to its original condition through grading and revegetation.

Exclusionary measures would be placed on the bridges prior to construction to prevent bats from roosting in the hinge spaces. These measures would also prevent swallow nesting underneath the bridges. These measures should be implemented prior to February 1 before swallows begin building nests for the breeding season.

Preconstruction surveys would be required for burrowing owls and migratory birds. If nests are found and are being used during the breeding season (February 1 to September 1), a buffer zone would be established and the area around the nest would

be fenced off until the young have fledged. Vegetation removal should take place before February 1 if feasible to prevent nesting activity and construction delays.

Threatened and Endangered Species
The following measures would be implemented between post mile 0.0 and post mile 2.95 to minimize impacts to vernal pool habitat:

- Vehicle staging would only occur on existing roadway and pullouts.
- Chemicals, lubricants, and petroleum products must be closely monitored to prevent spills and/or leakage. If spills occur, cleanup would take place immediately.
- Any sensitive habitat adjacent to the construction area would be designated an environmentally sensitive area and fenced off to prevent construction-related impacts.
- Habitat temporarily impacted by construction would be restored to its original condition through grading and revegetation.

Permanent impacts to vernal pools would be compensated for through the purchase of mitigation credits at a U.S. Fish and Wildlife Service approved mitigation bank. Permanent and temporary impacts to California tiger salamander upland habitat would also be compensated for at an approved mitigation bank.

Work in the channel of Jackson Creek would be restricted to between June 1 to September 15 to avoid interference in the potential spawning movements of Central Valley steelhead and Central Valley fall/late fall-run Chinook salmon.

Cultural Resources

To avoid impacts to site CA-AMA-56, the following measures would be implemented:

- The main site would be designated an environmentally sensitive area to protect it from disturbance during relocation of utilities and construction.
- An archaeologist who meets Caltrans' Professionally Qualified Staff criteria and representatives from the Ione Band of Miwok would monitor construction in the vicinity of the main site to ensure no disturbance takes place.

If significant cultural resources were found in areas of new right-of-way that Caltrans did not have previous access to, then appropriate avoidance and/or mitigation measures would be implemented prior to construction. If cultural materials were

discovered during construction, all earth-moving activity within and around the immediate discovery area would be diverted until a qualified archaeologist could assess the nature and significance of the find.

If human remains are discovered, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains, and the County Coroner contacted. Pursuant to Public Resources Code Section 5097.98, if the remains were thought to be Native American, the coroner would notify the Native American Heritage Commission, who would then notify the Most Likely Descendent. At this time, the person who discovered the remains would contact Caltrans Environmental Branch in District 10 (Stockton) so that they may work with the Most Likely Descendent on the respectful treatment and disposition of the remains. Further provisions of Public Resources Code Section 5097.98 are to be followed as applicable.

Paleontology

Impacts to paleontological resources would be mitigated by the preparation of a monitoring and mitigation program prior to construction. A qualified paleontologist would produce the monitoring and mitigation program. Some of the key features of the program include the following:

- Preconstruction coordination with the contractor and resident engineer and worker training on proper identification and notification when fossils are uncovered.
- Construction monitoring
- Emergency discovery procedures
- Sampling and data recovery
- Preparation, identification, and analysis of any fossil specimens salvaged
- Museum storage of any specimens and data recovered
- A final paleontological mitigation report

Visual

To mitigate for visual impacts, the following measures should be implemented during construction:

- Use native trees and shrubs to replant excavation slopes, embankment slopes, and other disturbed areas. The Caltrans landscape architect would consult with the Caltrans biologists on which species seed sources to use.
- Include native grass species in the erosion control mix.

- Construct slopes flatter than 1:2 when possible to provide optimum conditions for the application of revegetation materials (all proposed fill slopes steeper than 1:4 would require consultation with Caltrans' Landscape Architecture and Maintenance divisions).
- Round slopes to blend the tops and bottoms of embankments with existing contours.
- Avoid large trees when possible.
- Avoid exposing roots of trees adjacent to the project area.
- Establish environmentally sensitive areas to protect vegetation.
- Treat exposed rock to give the surfaces a weathered effect.

Water Quality

The use of standard Best Management Practices during construction and operation of the new roadway would maintain the existing water quality without causing significant impacts. Examples of Best Management Practices include, but are not limited to, the following measures:

- Physically protecting areas that provide important water quality benefits or are particularly susceptible to erosion or sediment loss.
- Limiting land disturbance such as clearing and grading to reduce erosion and sediment loss.
- Limiting disturbance of natural drainage features and vegetation.
- Preparing and implementing an approved storm water pollution prevention plan.
- Ensuring proper storage and disposal of toxic material.
- Incorporating pollution prevention into operation and maintenance procedures to reduce pollutants in road surface runoff.
- Developing and implementing runoff pollution controls for existing road systems to reduce pollutant concentrations and volumes.

Appendix D Special-Status Species List

SCIENTIFIC NAME	COMMON NAME	Status**			HABITAT DESCRIPTION SPECIES- Present (P) Absent (A)*	EFFECT DETERMINATION/ RATIONALE
		Federal	State	CNPS		
PLANTS						
Agrostis hendersonii	Henderson's bent grass			3	Vernal pools and foothill grasslands with mesic soils. Blooming period: Apr-May **A**	**NO EFFECT.** Suitable habitat occurs within the Project Impact Area (PIA), although species was not observed during surveys.
Arctostaphylos myrtifolia	Ione manzanita	T		1B	Chaparral and cismontane woodland associated with Ione formation and micaceous schist. Blooming period: Nov-Feb **A**	**NO EFFECT.** Ione soils not present within the project area. Species was not observed during surveys.
Calycadenia hooveri	Hoover's calycadenia			1B	Thin soils associated with rocky outcroppings in Ione sandstone cappings within valley/foothill communities. Blooming period: Jul-Sep **A**	**NO EFFECT.** Ione sandstone cappings not present within the project area. Species was not observed during surveys.
Castilleja campestris ssp. *succulenta*	Succulent owl's clover	T	E	1B	Northern Claypan and Northern Hardpan vernal pools within annual grassland communities. Blooming period: Apr-May **A**	**NO EFFECT.** Suitable habitat occurs within the PIA, although species was not observed during surveys.
Downingia pusilla	Dwarf downingia			2	Vernal pools and foothill grasslands with mesic soils. Blooming period: Mar-May **A**	**NO EFFECT.** Suitable habitat occurs within the PIA, although species was not observed during surveys.
Eriogonum apricum var. *apricum*	Ione buckwheat	E	E	1B	Chaparral associated with Ione formation with exposed soils. Blooming period: Jul-Oct **A**	**NO EFFECT.** Ione soils not present within the project area. Species was not observed during surveys.
Eriogonum apricum var. *prostratum*	Irish Hill buckwheat	E	E	1B	Chaparral associated with Ione formation with exposed soils. Blooming period: Jun-Jul **A**	**NO EFFECT.** Ione soils not present within the PIA. Species was not observed during surveys.

SCIENTIFIC NAME	COMMON NAME	Status** Federal	Status** State	Status** CNPS	HABITAT DESCRIPTION SPECIES- Present (P) Absent (A)*	EFFECT DETERMINATION/ RATIONALE
PLANTS CONTINUED						
Eryngium pinnatisectum	Tuolumne button-celery			1B	Seasonal swales and vernal pools associated with cismontane woodland and lower montane coniferous forest. Blooming period: Jun-Aug **A**	**NO EFFECT.** Suitable habitat occurs within the PIA, although species was not observed during surveys.
Gratiola heterosepala	Boggs Lake hedge-hyssop		E	1B	Margins of vernal pools, marshes and swamps associated with annual grassland, and oak woodland. Blooming period: Apr-Aug **A**	**NO EFFECT.** Suitable habitat occurs within the PIA, although species was not observed during surveys.
Helianthemum suffrutescens	Bisbee Peak Rushrose			3	Chaparral communities often with serpentinite, gabbroic, or Ione soils. Blooming Period: Apr-Jun **A**	**NO EFFECT.** Ione soils not present within the project area. Species was not observed during surveys.
Horkelia parryi	Parry's horkelia			1B	Chaparral and cismontane woodland associated with Ione formation. Blooming Period: Apr-Jun **A**	**NO EFFECT.** Ione soils not present within the project area. Species was not observed during surveys.
Legenere limosa	Legenere			1B	Vernal pools, vernal marshes, artificial ponds, and floodplains within annual grassland and oak woodlands. Blooming period: Apr-Jun **A**	**NO EFFECT.** Suitable habitat occurs within the PIA, although species was not observed during surveys.
Navarretia myersii ssp. *myersii*	Pincushion navarretia			1B	Vernal pools within annual grasslands. Blooming period: May-Jun **A**	**NO EFFECT.** Suitable habitat occurs within the PIA, although species was not observed during surveys.
Orcuttia viscida	Sacramento orcutt grass	E	E	1B	Northern Hardpan and Northern Volcanic Mudflow vernal pools on high-terrace sites within oak woodland and annual grasslands. Blooming period: May-Jun **A**	**NO EFFECT.** Suitable habitat occurs within the PIA, although species was not observed during surveys.

SCIENTIFIC NAME	COMMON NAME	Status** Federal	Status** State	Status** CNPS	HABITAT DESCRIPTION / SPECIES- Present (P) Absent (A)*	EFFECT DETERMINATION/ RATIONALE
PLANTS CONTINUED						
Sagittaria sanfordii	Sanford's arrowhead			1B	Marshes and swamps within shallow freshwater. Blooming period: May-Oct **A**	**NO EFFECT.** Marshes or swamps not present within the project area. Species was not observed during surveys.
Sphenopholis obtusata	Prairie wedge grass			2	Meadows and seeps within cismontane woodland. Blooming period: Apr-Jul **A**	**NO EFFECT.** Meadow adjacent to impact area would not be impacted. Species were not observed during surveys.

SCIENTIFIC NAME	COMMON NAME	Status** Federal	Status** State	HABITAT DESCRIPTION / SPECIES- Present (P) Absent (A)*	EFFECT DETERMINATION/ RATIONALE
ANIMALS					
INVERTEBRATES					
Branchinecta conservatio	Conservancy fairy shrimp	E		Relatively large and turbid vernal pools associated with varying landforms, geological formations, and soil types. **A**	**NO EFFECT.** PIA not within species range.
Branchinecta lynchi	Vernal pool fairy shrimp	T		Vernal pool complexes as part of undulating landscapes, where soil mounds are interspersed with basins, swales, and drainages. **P**	**LIKELY TO ADVERSELY AFFECT.** Inferred presence due to presence of suitable habitat and closest known population within 4 miles.

SCIENTIFIC NAME	COMMON NAME	Status** Federal	Status** State	HABITAT DESCRIPTION SPECIES- Present (P) Absent (A)*	EFFECT DETERMINATION/ RATIONALE
INVERTEBRATES CONTINUED					
Branchinecta mesovallensis	Midvalley fairy shrimp	SC		Small, short-lived vernal polls and grass-bottomed swales. May occupy habitats that are not inundated long enough for other species to inhabit. **A**	**MAY EFFECT, NOT LIKELY TO ADVERSELY AFFECT.** Potentially suitable habitat present. Closest known population within 10.5 miles.
Desmocerus californicus dimorphus	Valley elderberry longhorn beetle	T		Central Valley of California and surrounding foothills to approx. 3,000 feet; prefers riparian habitat. Exclusively reproduces in the stems of blue elderberry (*Sambucus mexicana*). **A**	**NO EFFECT.** *Sambucus mexicana* not present within the PIA.
Lepidurus packardi	Vernal pool tadpole shrimp	E		Vernal pools associated with varying geologic formations and soil types. **A**	**MAY EFFECT, NOT LIKELY TO ADVERSELY AFFECT.** Potentially suitable habitat present. Closest known population within 5.5 miles.
Linderiella occidentalis	California fairy shrimp	SC		Most landforms, geologic formations, and soil types that support vernal pools of any size. **A**	**MAY EFFECT, NOT LIKELY TO ADVERSELY AFFECT.** Potentially suitable habitat present. Closest known population within 5.5 miles.
FISH					
Hypomesus transpacificus	Delta smelt	T	T	Endemic to the upper San Francisco Estuary, principally the Delta and Suisun Bay. **A**	**NO EFFECT.** BSA not within species range. Suitable habitat does not exist within PIA.
Lampetra hubbsi	Kern brook lamprey		SC	Endemic to the east side of the San Joaquin Valley, primarily occur in silty backwaters of rivers emerging from the Sierra foothills. Spawn in gravel-bottomed areas; burrow and forage in muddy-bottomed areas. **A**	**NO EFFECT.** Suitable habitat does not exist within the PIA.

SCIENTIFIC NAME	COMMON NAME	Status**		HABITAT DESCRIPTION SPECIES- Present (P) Absent (A)*	EFFECT DETERMINATION/ RATIONALE
		Federal	State		
FISH CONTINUED					
Oncorhynchus mykiss	Central Valley steelhead	T		Anadromous species requiring clean rivers and tributaries with gravely substrates for spawning within the Central Valley having access to the Pacific Ocean for the adult phase of life cycle. **P**	**NOT LIKELY TO ADVERSELY AFFECT.** Suitable habitat does exist at Jackson Creek. Avoidance measures would be implemented to avoid impacts to the reproductive cycle of the species
Oncorhynchus tshawytscha	Central Valley fall/late fall-run chinook salmon	C	SC	Anadromous species requiring clean rivers with gravely substrates for spawning. Found in the Sacramento and San Joaquin rivers and their tributaries. **P**	**NOT LIKELY TO ADVERSELY AFFECT.** Suitable habitat does exist within Jackson Creek. Avoidance measures would be implemented to avoid impacts to the reproductive cycle of the species.
Oncorhynchus tshawytscha	Central Valley spring-run chinook salmon	T	T	Anadromous species requiring clean rivers with gravely substrates for spawning. Presently found only in the Sacramento River drainage. **A**	**NO EFFECT.** PIA not within species range.
Oncorhynchus tshawytscha	Winter-run chinook salmon	E	E	Anadromous species requiring clean rivers with gravely substrates for spawning. Presently found only in the mainstream Sacramento River, below Keswick Dam. **A**	**NO EFFECT.** PIA not within species range.
Pogonichyhys macrolepidotus	Sacramento splittail		SC	Endemic to California, mainly to sloughs, lakes, and rivers of the Central Valley. Have a high tolerance for brackish water; now largely confined to the Delta, Suisun Bay, Suisun Marsh, and the lower Napa River. **A**	**NO EFFECT.** Suitable habitat does not exist within the PIA.

SCIENTIFIC NAME	COMMON NAME	Status** Federal	Status** State	HABITAT DESCRIPTION SPECIES- Present (P) Absent (A)*	EFFECT DETERMINATION/ RATIONALE
FISH CONTINUED					
Spirinchus thaleichthys	Longfin smelt		SC	Inhabits major bays and estuaries from San Francisco Bay northward; occurs in bay waters in the summer and moves into the lower reaches of the rivers that flow into these bays. **A**	**NO EFFECT.** Suitable habitat does not exist within the PIA.
AMPHIBIANS					
Ambystoma californiense	California tiger salamander	T	SC	Restricted to grasslands and low foothill (under 3200 feet) regions of Central and Northern California. Prefer natural ephemeral pools or ponds (that are allowed to go dry). Dry season refugia within small mammal burrows up to 1 mile away from breeding pools. **P**	**LIKELY TO ADVERSELY AFFECT.** Inferred presence due to presence of suitable aestivation and breeding habitat. Closest known breeding pool within 2 miles.
Rana boylii	Foothill yellow-legged frog		SC	Shallow, flowing water, preferentially in small to moderate-sized streams with some cobble-sized present. **A**	**NO EFFECT.** Suitable habitat does not exist within the PIA. Surveys provided negative findings.
Rana aurora draytonii	California red-legged frog	T	SC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation. **A**	**NO EFFECT.** Suitable habitat does not exist within the PIA. Surveys provided negative findings.
Spea (=Scaphiopus) hammondii	Western spadefoot toad		SC	Grassland habitats, Valley-foothill hardwood woodlands; Vernal pools essential for breeding and egg disposition. **P**	**LIKELY TO ADVERSELY AFFECT.** Suitable habitat is present. Closest known population within 5.5 miles.
REPTILES					
Emys (=Clemmys) marmorata	Western pond turtle		SC	Ponds, marshes, rivers, streams, and irrigation ditches that have a rocky or muddy bottom with cattail, mats, and mudbanks. **A**	**NOT LIKELY TO ADVERSELY AFFECT.** Possible habitat within Jackson Creek. Avoidance measures would be implemented to avoid impact to species.

SCIENTIFIC NAME	COMMON NAME	Status** Federal	Status** State	HABITAT DESCRIPTION SPECIES- Present (P) Absent (A)*	EFFECT DETERMINATION/ RATIONALE
REPTILES CONTINUED					
Phrynosoma coronatum	California horned lizard (frontale population)		SC	Variable habitats ranging from areas of exposed gravelly-sandy substrate containing scattered shrubs, to clearings in riparian woodlands, to chaparral, to annual grassland with scattered shrubs and alkali flats. [A]	**NO EFFECT.** Suitable habitat does not exist within the PIA. Species was not observed during surveys.
Thamnophis gigas	Giant garter snake	T	T	Streams and sloughs with mud bottoms. Usually found in areas of freshwater marsh and low gradient streams, although it also frequents temporary water such and drainage canals and irrigation ditches. [A]	**NO EFFECT.** Suitable habitat does not exist within the PIA.
BIRDS					
Agelaius tricolor	Tri-colored blackbird		SC	Central Valley habitats associated with open water, tule marshes with protective vegetation for nesting. [A]	**NO EFFECT.** Suitable habitat for nesting colonies does not exist within the PIA.
Amphispiza belli belli	Bell's sage sparrow		SC	Dry brushy foothills, open chaparral, sagebrush plains, and deserts in the winter months. [A]	**NO EFFECT.** Suitable habitat does not exist within the PIA.
Aquila chrysaetos	Golden eagle		SC	Open mountains, foothills, canyons, and plains. Nests in open habitats, especially on cliffs 3 to 30 meters high on mountains and hills. [A]	**NO EFFECT.** Suitable habitat does exist within PIA. Avoidance measures would be implemented to avoid impacts to nesting.
Ardea alba	Great egret			Rookery sites: nests in colonies on tops of secluded large snags or live trees usually among the tallest available near shallow water. Nesting colony must be isolated from human activities, or parents may abandon nests. [P]	**NO EFFECT.** Suitable rookery habitat does exist within the study area. Avoidance measures would be implemented to avoid impacts to nesting.

SCIENTIFIC NAME	COMMON NAME	Status** Federal	Status** State	HABITAT DESCRIPTION SPECIES- Present (P) Absent (A)*	EFFECT DETERMINATION/ RATIONALE
BIRDS CONTINUED					
Ardea herodias	Great blue heron			Rookery sites: nests in colonies on tops of secluded large snags or live trees usually among the tallest available. Prefers secluded groves dominated by a Fremont cottonwood near shallow water feeding areas. Nesting colony must be isolated from human activities, or parents may abandon nests. **P**	**NO EFFECT.** Heron rookery historically located at Jackson Creek Bridge, although herons have not been observed for many years. Avoidance measures would be implemented to avoid impacts to nesting.
Athene cunicularia	Burrowing owl		SC	Yearlong resident of open, dry grassland and desert habitats, as well as open shrub stages of pinyon-juniper and ponderosa pine habitats. Uses rodent or other burrows as roosting and nesting cover. **A**	**NO EFFECT.** Suitable habitat does exist within the study area. Avoidance measures would be implemented to avoid impacts to the species.
Buteo regalis	Ferruginous hawk		SC	Winter resident and migrant at lower elevations and open grasslands in the Central Valley. Open grasslands, sagebrush flats, desert scrub, low foothills surrounding valleys, and pinyon-juniper habitats. Nests from Oregon into Canada. **A**	**NO EFFECT.** PIA on edge of species wintering range. Suitable foraging and wintering habitat does exist within PIA. Avoidance measures would offset potential effects.
Buteo swainsoni	Swainson's hawk		T	Nests in stands with scattered large trees occurring in various habitats in the Central Valley. Foraging habitat includes grasslands, suitable grain or alfalfa fields, and livestock pastures. **A**	**NO EFFECT.** Suitable nesting habitat does exist within PIA. Avoidance measures would be implemented to avoid impacts to nesting.
Charadrius montanus	Mountain plover		SC	Winter resident of the Central Valley that utilizes open grasslands, plowed fields, and foothill valleys. **A**	**NO EFFECT.** PIA not within species range. Known wintering area within the Central Valley is south of Sacramento and approximately west of Highway 99.

SCIENTIFIC NAME	COMMON NAME	Status** Federal	Status** State	HABITAT DESCRIPTION SPECIES- Present (P) Absent (A)*	EFFECT DETERMINATION/ RATIONALE
BIRDS CONTINUED					
Dendroica petechia brewsteri	Yellow Warbler		SC	Territory often includes tall trees in riparian woodlands from coastal to desert lowlands with a heavy brush understory for nesting. Arrives in California in April and leaves to Imperial and Colorado river valleys by October. **A**	**NOT LIKELY TO ADVERSELY AFFECT.** Suitable habitat does exist within PIA. Avoidance measures would be implemented to avoid impacts to nesting.
Elanus leucurus	White-Tailed Kite		FP	Year-long resident of coastal and valley lowlands, inhabiting herbaceous and open stages of most habitats in cismontane California. Nests are built near top of dense oaks, willows, or other tree stands. **A**	**NOT LIKELY TO ADVERSELY AFFECT.** Suitable habitat does exist within PIA. Avoidance measures would be implemented to avoid impacts to nesting.
Falco mexicanus	Prairie falcon		SC	Mountainous grasslands, open hills, plains, and prairies. Requires sheltered cliff ledges for cover and nests on cliffs, bluffs, or rock outcrops. Wintering habitat within the Central Valley and surrounding foothills. **A**	**NO EFFECT.** Suitable foraging and wintering habitat does exist within the PIA. Avoidance measures would offset potential effects.
Haliaeetus leucocephalus	Bald eagle	T	E	Foraging habitat includes large bodies of water or free-flowing rivers with abundant fish and, ideally, adjacent perching areas. Nests in large trees with open branch-work, prefers ponderosa pine. Nest usually located near a permanent water source. **A**	**NO EFFECT.** Possible suitable foraging habitat does exist within the PIA. Species is known to winter and nest at nearby Pardee and Comanche reservoirs. Avoidance measures would offset potential effects.
Icteria virens	Yellow-Breasted Chat		SC	Summer resident and migrant in coastal California and in Sierra Nevada foothills. Requires riparian thickets of willow and other brushy vegetation near watercourses for cover. Nests are typically 2 to 8 feet above ground in dense shrubs. **A**	**NOT LIKELY TO ADVERSELY AFFECT.** Suitable habitat does exist within PIA. Avoidance measures would be implemented to avoid impacts to nesting.

SCIENTIFIC NAME	COMMON NAME	Status** Federal	Status** State	HABITAT DESCRIPTION SPECIES- Present (P) Absent (A)*	EFFECT DETERMINATION/ RATIONALE
BIRDS CONTINUED					
Lanius ludovicianus	Loggerhead Shrike		SC	Resident and winter visitor in open habitats within lowlands and foothills with open-canopied woodlands. **A** Associated	**NO EFFECT.** Suitable foraging and wintering habitat does exist within the PIA. Avoidance measures would offset potential effects.
Pandion haliaetus	Osprey		SC	Resident associated strictly with large, fish-bearing waters, primarily in conifer habitats. **A** Requires clear, open waters for foraging. Uses large trees, snags, and dead-topped trees in open forest habitats for cover.	**NO EFFECT.** Suitable foraging habitat does not exist within the PIA.
Riparia riparia	Bank swallow (nesting)		T	Nests colonially in sand banks near marshes, streams, and lakes. Requires fine-textured or sandy banks or cliffs to dig **A** horizontal nesting tunnels and burrows.	**NOT LIKELY TO ADVERSELY EFFECT.** Suitable habitat does exist within PIA. Avoidance measures would be implemented to avoid impacts to nesting.
MAMMALS					
Corynorhinus townsendii	Townsend's big eared bat		SC	Inhabits humid, coastal regions of northern and central California. Roosts in limestone caves, lava tubes, mines, and buildings. **A** Will only roost in the open, hanging from walls and ceilings. Extremely sensitive to disturbances.	**NO EFFECT.** Preferred habitat not present within PIA. Species and habitat were not observed during surveys.
Euderma maculatum	Spotted bat		SC	Inhabits a wide variety of habitats from arid deserts and grasslands through mixed conifer forests. Prefers to roost in rock **A** crevices, but occasionally found in caves and buildings.	**NO EFFECT.** Preferred habitat not present within PIA. Species and habitat were not observed during surveys.

SCIENTIFIC NAME	COMMON NAME	Status** Federal	Status** State	HABITAT DESCRIPTION SPECIES- Present (P) Absent (A)*	EFFECT DETERMINATION/ RATIONALE
MAMMALS CONTINUED					
Eumops perotis californicus	Greater western mastiff bat		SC	Inhabits many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in rock crevices, hollow trees, and buildings. **A**	**NO EFFECT.** Preferred habitat not present within PIA. Species and habitat were not observed during surveys.
Myotis ciliolabrum	Western small-footed myotis bat		SC	Found in chaparral, riparian areas with oak and juniper. Roosts in crevices and cavities of cliffs or rocks, and possibly within caves or mine shafts. **A**	**NO EFFECT.** Suitable habitat does exist within PIA. Avoidance measures would offset potential effects.
Myotis evotis	Long-eared myotis bat		SC	Found in all brush, woodland, and forest habitats up to 9,000 feet; prefers coniferous woodlands and forests; daytime roosts include buildings, hollow trees, caves, mines, and rocks. Night roosts include caves. **A**	**NO EFFECT.** Suitable habitat does exist within PIA. Avoidance measures would offset potential effects.
Myotis thysanodes	Fringed myotis bat		SC	Inhabits a wide variety of habitats, but optimal habitats include pinyon-juniper woodland, valley-foothill hardwood, and hardwood-conifer. Caves, mines, buildings, and crevices are used for maternity colonies and roosts. **A**	**NO EFFECT.** Suitable habitat does exist within PIA. Avoidance measures would offset potential effects.
Myotis volans	Long-legged myotis bat		SC	Inhabits woodland and forest habitats above 3,900 feet; trees serve as day roosts, whereas caves and mines serve as night roosts. **A**	**NO EFFECT.** Preferred habitat not present within PIA. Species and habitat were not observed during surveys.
Myotis yumanensis	Yuma myotis bat		SC	Inhabits open forests and wooded canyon bottoms with sources of water over which to feed. Roosts include caves, mines, buildings, and crevices. **A**	**NO EFFECT.** Suitable habitat does exist within PIA. Avoidance measures would offset potential effects.

***P/A-** P-Present (general habitat is present and species may be present), A- Absent (no further work needed)

****Status**

State: California Department of Fish and Game

E - Endangered; T - Threatened; SC - Species of Special Concern; FP - Fully Protected

Federal: United States Fish and Wildlife Service & National Oceanic and Atmospheric Administration Fisheries Service

E - Endangered; T - Threatened; C - Candidate to become a proposed species

CNPS: California Native Plant Society

1B - Plants rare, threatened, or endangered in California and elsewhere

2 - Plants rare, threatened, or endangered in California but common elsewhere

3 - Plants about which more information is needed

Appendix E AD 1006 Form

U.S. Department of Agriculture

FARMLAND CONVERSION IMPACT RATING

PART I *(To be completed by Federal Agency)*	Date Of Land Evaluation Request
Name Of Project Jackson Valley Rehabilitation	Federal Agency Involved FHWA
Proposed Land Use Transportation	County And State Amador, CA
PART II *(To be completed by NRCS)*	Date Request Received By NRCS

Does the site contain prime, unique, statewide or local important farmland? *(If no, the FPPA does not apply -- do not complete additional parts of this form).* Yes ☐ No ☐		Acres Irrigated	Average Farm Size
Major Crop(s)	Farmable Land In Govt. Jurisdiction Acres: %	Amount Of Farmland As Defined in FPPA Acres: %	
Name Of Land Evaluation System Used	Name Of Local Site Assessment System	Date Land Evaluation Returned By NRCS	

PART III *(To be completed by Federal Agency)*	Alternative Site Rating Site A	Site B	Site C	Site D
A. Total Acres To Be Converted Directly	29.0			
B. Total Acres To Be Converted Indirectly	0.0			
C. Total Acres In Site	29.0	0.0	0.0	0.0
PART IV *(To be completed by NRCS)* Land Evaluation Information				
A. Total Acres Prime And Unique Farmland				
B. Total Acres Statewide And Local Important Farmland				
C. Percentage Of Farmland In County Or Local Govt. Unit To Be Converted				
D. Percentage Of Farmland In Govt. Jurisdiction With Same Or Higher Relative Value				
PART V *(To be completed by NRCS)* Land Evaluation Criterion Relative Value Of Farmland To Be Converted *(Scale of 0 to 100 Points)*	100	0	0	0

PART VI *(To be completed by Federal Agency)* Site Assessment Criteria *(These criteria are explained in 7 CFR 658.5(b)*	Maximum Points				
1. Area In Nonurban Use	15	15			
2 Perimeter In Nonurban Use	10	10			
3. Percent Of Site Being Farmed	20	10			
4. Protection Provided By State And Local Government	20	10			
5. Distance From Urban Builtup Area	0	0			
6 Distance To Urban Support Services	0	0			
7. Size Of Present Farm Unit Compared To Average	10	0			
8 Creation Of Nonfarmable Farmland	25	0			
9. Availability Of Farm Support Services	5	2			
10. On-Farm Investments	20	5			
11. Effects Of Conversion On Farm Support Services	25	0			
12. Compatibility With Existing Agricultural Use	10	0			
TOTAL SITE ASSESSMENT POINTS	160	52	0	0	0
PART VII *(To be completed by Federal Agency)*					
Relative Value Of Farmland *(From Part V)*	100	100	0	0	0
Total Site Assessment *(From Part VI above or a local site assessment)*	160	52	0	0	0
TOTAL POINTS *(Total of above 2 lines)*	260	152	0	0	0

Site Selected:	Date Of Selection	Was A Local Site Assessment Used? Yes ☐ No ■

Reason For Selection:

(See Instructions on reverse side) Form AD-1006 (10-83)

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List of Technical Studies that are Bound Separately

Water Quality Report
Natural Environment Study
Location Hydraulic Study
Historic Property Survey Report
Hazardous Waste Report
Paleontology Study
Scenic Resource Evaluation